

PATENT COOPERATION TREATY

PCT

INTERNATIONAL SEARCH REPORT

(PCT Article 18 and Rules 43 and 44)

Applicant's or agent's file reference PCTA9502-92	FOR FURTHER ACTION see Form PCT/ISA/220 as well as, where applicable, item 5 below.	
International application No. PCT/KR2005/000532	International filing date (day/month/year) 25 FEBRUARY 2005 (25.02.2005)	(Earliest) Priority Date (day/month/year) 26 FEBRUARY 2004 (26.02.2004)
Applicant CJ Corporation et al		

This International search report has been prepared by this International Searching Authority and is transmitted to the applicant according to Article 18. A copy is being transmitted to the International Bureau.

This international search report consists of a total of 4 sheets.

☐ It is also accompanied by a copy of each prior art document cited in this report.

1. Basis of the report

a. With regard to the language, the international search was carried out on the basis of the international application in the language in which it was filed, unless otherwise indicated under this item:

☐ The international search was carried out on the basis of a translation of the international application furnished to this Authority (Rule 23.1(b)).

b. ☒ With regard to any nucleotide and/or amino acid sequence disclosed in the international application, see Box No. I.

2. ☐ Certain claims were found unsearchable (See Box No. II)

3. ☐ Unity of invention is lacking (See Box No. III)

4. With regard to the title,

☒ the text is approved as submitted by the applicant.

☐ the text has been established by this Authority to read as follows:



5. With regard to the abstract,

☒ the text is approved as submitted by the applicant.

☐ the text has been established, according to Rule 38.2(b), by this Authority as it appears in Box No. IV. The applicant may, within one month from the date of mailing of this international search report, submit comments to this Authority.

6. With regard to the drawings,

a. the figure of the drawings to be published with the abstract is Figure No. 1

☒ as suggested by the applicant.

☐ because the applicant failed to suggest a figure.

☐ because this figure better characterizes the invention.

b. ☐ none of the figure is to be published with the abstract.

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International application No.

PCT/KR2005/000532

Box No. I Nucleotide and/or amino acid sequence(s) (Continuation of item 1.b of the first sheet)

1. With regard to any nucleotide and/or amino acid sequence disclosed in the international application and necessary to the claimed invention, the international search was carried out on the basis of:

a. type of material

- ☒ a sequence listing
☐ table(s) related to the sequence listing

b. format of material

- ☒ in written format
☒ in computer readable form

c. time of filing/furnishing

- ☒ contained in the international application as filed
☒ filed together with the international application in computer readable form
☐ furnished subsequently to this Authority for the purposes of search

2. ☐ In addition, in the case that more than one version or copy of a sequence listing and/or table relating thereto has been filed or furnished, the required statements that the information in the subsequent or additional copies is identical to that in the application as filed or does not go beyond the application as filed, as appropriate, were furnished.

3. Additional comments:

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 International application No.
 PCT/KR2005/000532
A. CLASSIFICATION OF SUBJECT MATTER**IPC7 C12N 15/54**

According to International Patent Classification (IPC) or to both national classification and IPC

B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)

IPC7 C12N 15/54,

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Korean patents and applications for inventions since 1975

Electronic data base consulted during the international search (name of data base and, where practicable, search terms used)

eKIPASS, Delphion, PATROM, PAJ, NCBI PubMed database

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	Frederic M.V. et al., "Carnitine Biosynthesis: Identification of the cDNA Encoding Human gamma-Butyrobetaine Hydroxylase." Biochemical and Biophysical Research Communications, Vol. 250, pp 506-510 (1998). See the whole document.	7
A	Galagan J.E. et al., "The genome sequence of the filamentous fungus Neurospora crassa." Nature Vol. 422(6934), pp: 859-868 (2003). See the whole document	1 - 7
A	Bach. A., "Carnitine biosynthesis in mammals" Reprod Nutr Dev. Vol. 22(4), pp583-596 (1982). See the whole document.	1 - 7
A	Sandor A. et al., "An enzymatic method for the determination of butyrobetaine via conversion to carnitine after isolation by high performance liquid chromatography." Clin Chim Acta. Vol. 176(1), pp 17-27 (1988) See the whole document	1 - 7
A	US 20030037350 A1 (Mellennium Pharmaceuticals, Inc.) 20 February 2003 See the whole document	1 - 7

☐ Further documents are listed in the continuation of Box C.

☒ See patent family annex.

* Special categories of cited documents:

- "A" document defining the general state of the art which is not considered to be of particular relevance
- "E" earlier application or patent but published on or after the international filing date
- "L" document which may throw doubts on priority claim(s) or which is cited to establish the publication date of citation or other special reason (as specified)
- "O" document referring to an oral disclosure, use, exhibition or other means
- "P" document published prior to the international filing date but later than the priority date claimed

- "T" later document published after the international filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention
- "X" document of particular relevance; the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone
- "Y" document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art
- "&" document member of the same patent family

Date of the actual completion of the international search

11 JULY 2005 (11.07.2005)

Date of mailing of the international search report

11 JULY 2005 (11.07.2005)

Name and mailing address of the ISA/KR


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INTERNATIONAL SEARCH REPORT

Information on patent family members

International application No.

PCT/KR2005/000532

Patent document cited in search report	Publication date	Patent family member(s)	Publication date
US 20030037350 A1	20. 02. 2003	W00164880C2	16. 01. 2003
		W00164880A3	03. 01. 2002
		W00164880A2	07. 09. 2001
		W00132885C2	16. 05. 2002
		W00132885A3	28. 03. 2002
		W00132885A2	10. 05. 2001
		W00123589C2	05. 12. 2002
		W00123589A3	17. 01. 2002
		US20030037350A1	20. 02. 2003
		US20020076784A1	20. 06. 2002
		US6482620	19. 11. 2002
		AU0141875A5	12. 09. 2001
		AU0113616A5	14. 05. 2001
		AU0110719A5	30. 04. 2001